

WHAT IS CLAIMED IS:

1. A semiconductor device cut into respective chips by a dicing process, comprising:

5 a substrate having an edge along a dicing line;

a semiconductor element formed on said substrate;

a jetty portion formed between said semiconductor element and said edge on said substrate; and

10 an electrode pad for signal input and output which is formed on said substrate, and inside of the outermost wall of said jetty portion.

2. The semiconductor device according to claim 1, wherein said jetty portion continuously extends along said edge in parallel.

15 3. The semiconductor device according to claim 1, wherein said jetty portion is formed so as to surround periphery of said semiconductor element.

20 4. The semiconductor device according to claim 1, wherein said semiconductor element includes an insulating layer and a conducting layer formed on said insulating layer;

said jetty portion includes an insulating layer and a conducting layer formed on said insulating layer;

25 said insulating layer of said semiconductor element and said insulating layer of said jetty portion are formed in the same process; and

said conducting layer of said semiconductor element and said conducting layer of said jetty portion are formed in the same process.

30 5. The semiconductor device according to claim 4, wherein said electrode pad for signal input and output is formed on said conducting layer of said semiconductor element and said semiconductor device further comprising an electrode pad for said jetty portion which is formed inside of said outermost wall on said conducting layer of the jetty portion, and which is connected electrically to said electrode pad for signal input and output in
35 order to make potential difference between said conducting layer of said

jetty portion and said conducting layer of said semiconductor element close to zero.

6. A semiconductor device comprising:

a substrate;

a structure body supported by a fixing portion so as to form a space between said substrate and said structure body; and

a jetty portion formed on said substrate between the outer periphery of said substrate and a portion of said structure body which is not supported by said fixing portion.

7. The semiconductor device according to claim 6, wherein a plurality of said jetty portions are formed so as to surround the outer periphery of said structure body.

8. The semiconductor device according to claim 6 further comprising an electrode pad for signal input and output which is formed on said structure body and inside of the outermost wall of said jetty portion.

9. The semiconductor device according to claim 8, wherein a plurality of said jetty portions are formed so as to surround said structure body and said electrode pad for signal input and output is arranged inside of an imaginary outer periphery which is formed by connecting the outermost walls of said jetty portions.

10. The semiconductor device according to claim 6, wherein said structure body includes a conducting layer formed on said fixing portion;

said jetty portion includes an insulating layer and a conducting layer formed on said insulating layer;

said fixing portion of said structure body and said insulating layer of said jetty portion are formed in the same process; and

said conducting layer of said structure body and said conducting layer of said jetty portion are formed in the same process.

11. The semiconductor device according to claim 10, wherein said electrode pad for signal input and output is formed on said conducting layer of said structure body and said semiconductor device further comprising an electrode pad for said jetty portion which is formed on said conducting layer of the jetty portion, and which is connected electrically to said electrode pad for signal input and output in order to make potential difference between said conducting layer of said jetty portion and said conducting layer of said structure body close to zero.

12. The semiconductor device according to claim 10 further comprising a potential equalizing means in order to make potential difference between said conducting layer of said jetty portion and said conducting layer of said structure body close to zero.

13. The semiconductor device according to claim 11 further comprising an impedance detecting means which is connected to said electrode pad for signal input and output to detect impedance change between said structure body and said substrate.

14. The semiconductor device according to claim 1, wherein an upper portion of inside area of said jetty portion is opened.